EXHIBIT 300   **UII 026-000001408**

Exhibit 300: Capital Asset Summary

Part I: Summary Information And Justification (All Capital Assets)

Section A: Overview & Summary Information

Date Investment First Submitted: 2009-06-30
Date of Last Change to Activities:
Investment Auto Submission Date: 2012-02-24
Date of Last Investment Detail Update: 2012-02-24
Date of Last Exhibit 300A Update: 2012-07-24
Date of Last Revision: 2012-07-24

Agency: 026 - National Aeronautics and Space Administration   **Bureau:** 00 - Agency-Wide Activity

Investment Part Code: 01

Investment Category: 00 - Agency Investments

1. Name of this Investment: JSC Software Development/Integration Laboratory

2. Unique Investment Identifier (UII): 026-000001408

Section B: Investment Detail

1. **Provide a brief summary of the investment, including a brief description of the related benefit to the mission delivery and management support areas, and the primary beneficiary(ies) of the investment. Include an explanation of any dependencies between this investment and other investments.**

    The Software Development and Integration Laboratory (SDIL) houses the Command & Data Handling (C&DH) subsystem along with other ISS subsystem hardware. The SDIL C&DH is comprised of flight equivalent hardware replicating the onboard computers & network capabilities of the International Space Station (ISS). The SDIL facility also includes the ground support & test functions for the associated ground operations & sustaining engineering. The ISS Avionics Software and Integration Laboratory (SDIL) consists of highly specialized systems and developers closely supporting the on-orbit configuration. The primary concerns for these systems are tight configuration management, isolated operations and availability. The ISS Program has expended extensive resources to develop the consolidated self-sufficient environment to meet these needs. Due to the specialized nature of this investment, as described above, it would not be cost effective to migrate this functionality to a cloud service at this time. ISS is incorporating the IPv6 into acquistion planning to ensure compliance. The Consolidated Labs group within Boeing provides the overall operations & sustaining resources for the multiple labs that comprise the SDIL facility (e.g. Software Verification Facility – SVF, Integrated Test Rig – ITR, Prime Software Production Facility – PSPF, etc). The support includes activities like SDIL systems engineering, operations, scheduling, and maintenance of test platforms, and computer systems security for all systems. The SDIL activity supports the International Space Station

EXHIBIT 300   **UII 026-000001408**

Program, International Partners and Particpants and payload and experiment developers.

2. **How does this investment close in part or in whole any identified performance gap in support of the mission delivery and management support areas? Include an assessment of the program impact if this investment isn't fully funded.**

   If this investment is not fully funded the International Space Station Program will be unable to update flight Avionics through the life of the Program.

3. **Provide a list of this investment's accomplishments in the prior year (PY), including projects or useful components/project segments completed, new functionality added, or operational efficiency achieved.**

   1. Provided 2 ISS Flight Following Mission support , 18 Formal Stage Tests, 14 IP/visiting Vehicle Testing, 10 Flight Equipment, 44 MOD MCC/MCT test & over 98 % system availability in support of ongoing ISS mission. 2. IT sustaining accomplished replacement of planned obsolescent Workstation & other SW/HW upgrades within the Software Development and Integration Laboratories (SDIL). 3. Successfully completed OIG IT security audit & a 3rd party Independent Assessment and Authorization (A&A) IT Security Audit for the continuation of the SDIL Authority to Operate (ATO).

4. **Provide a list of planned accomplishments for current year (CY) and budget year (BY).**

   FY12 1. System Software NetBack installation. 2. Installation of Electrical Power Generator for as a backup power source. 3. Installation and testing of EPIC Proto-C cards into the Integrated Test Rig (ITR). 4. Continuation of COTS vehicle integrated testing in SDIL. FY13 Provide Mission Support and Stage Testing; Software sustaining. Commercial Vehicle integrated testing in SDIL. Continued Sustaining of obsolescent SDIL equipment.

5. **Provide the date of the Charter establishing the required Integrated Program Team (IPT) for this investment. An IPT must always include, but is not limited to: a qualified fully-dedicated IT program manager, a contract specialist, an information technology specialist, a security specialist and a business process owner before OMB will approve this program investment budget. IT Program Manager, Business Process Owner and Contract Specialist must be Government Employees.**

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EXHIBIT 300   **UII 026-000001408**

Section C: Summary of Funding (Budget Authority for Capital Assets)

1.

Table I.C.1 Summary of Funding				
	PY-1 & Prior	PY 2011	CY 2012	BY 2013
Planning Costs:	$0.0	$0.0	$0.0	$0.0
DME (Excluding Planning) Costs:	$0.0	$0.0	$0.0	$0.0
DME (Including Planning) Govt. FTEs:	$0.0	$0.0	$0.0	$0.0
Sub-Total DME (Including Govt. FTE):	0	0	0	0
O & M Costs:	$2,137.2	$114.1	$96.2	$74.6
O & M Govt. FTEs:	$43.9	$7.7	$7.6	$7.4
Sub-Total O & M Costs (Including Govt. FTE):	$2,181.1	$121.8	$103.8	$82.0
Total Cost (Including Govt. FTE):	$2,181.1	$121.8	$103.8	$82.0
Total Govt. FTE costs:	$43.9	$7.7	$7.6	$7.4
# of FTE rep by costs:	225	48	46	43

Total change from prior year final President's Budget ($)		$0.0	$0.0	
Total change from prior year final President's Budget (%)		0.00%	0.00%	

EXHIBIT 300   **UII 026-000001408**

2. If the funding levels have changed from the FY 2012 President's Budget request for PY or CY, briefly explain those changes:

Funding levels have not changed since the last FY12 NASA budget submission on June 2011.

EXHIBIT 300   **UII 026-000001408**

Section D: Acquisition/Contract Strategy (All Capital Assets)

Table I.D.1 Contracts and Acquisition Strategy											
Contract Type	EVM Required	Contracting Agency ID	Procurement Instrument Identifier (PIID)	Indefinite Delivery Vehicle (IDV) Reference ID	IDV Agency ID	Solicitation ID	Ultimate Contract Value ($M)	Type	PBSA ?	Effective Date	Actual or Expected End Date
Awarded		NAS-15-10000									

2. If earned value is not required or will not be a contract requirement for any of the contracts or task orders above, explain why:

Earned value is not required for this investment. However, the overall contract in support of the investment utilizes an established EVM system which is reviewed on a monthly basis.

EXHIBIT 300   **UII 026-000001408**

Exhibit 300B: Performance Measurement Report

Section A: General Information

Date of Last Change to Activities:

Section B: Project Execution Data

Table II.B.1 Projects

Project ID	Project Name	Project Description	Project Start Date	Project Completion Date	Project Lifecycle Cost ($M)
	NONE				

Activity Summary

Roll-up of Information Provided in Lowest Level Child Activities

Project ID	Name	Total Cost of Project Activities ($M)	End Point Schedule Variance (in days)	End Point Schedule Variance (%)	Cost Variance ($M)	Cost Variance (%)	Total Planned Cost ($M)	Count of Activities
NONE								

Key Deliverables

Project Name	Activity Name	Description	Planned Completion Date	Projected Completion Date	Actual Completion Date	Duration (in days)	Schedule Variance (in days)	Schedule Variance (%)
				NONE				

EXHIBIT 300 UII 026-000001408

Section C: Operational Data

				Table II.C.1 Performance Metrics				
Metric Description	**Unit of Measure**	**FEA Performance Measurement Category Mapping**	**Measurement Condition**	**Baseline**	**Target for PY**	**Actual for PY**	**Target for CY**	**Reporting Frequency**
Test Platform Availability	Percentage	Customer Results - Service Accessibility	Over target	98.000000	98.000000	96.000000	98.000000	Monthly
Planned Operations	Hours/Week	Mission and Business Results - Support Delivery of Services	Over target	120.000000	120.000000	106.000000	120.000000	Monthly
planned Maintenance	Less than 8 hrs/week	Process and Activities - Productivity	Under target	8.000000	8.000000	10.800000	8.000000	Monthly
Upplanned Maintenance	Less Than 1.5 hrs/week	Process and Activities - Productivity	Under target	1.500000	1.500000	4.800000	1.500000	Monthly
Mission Essential Data Availability	Percentage	Process and Activities - Security and Privacy	Over target	96.000000	96.000000	100.000000	96.000000	Monthly